Claims:

1. A method for embedding a component (8) at least partly inside a circuit board, which component comprises an optically active area (11) and which circuit board comprises alternating conductor layers (1) and insulating layers (2), as well as at least one optical bus (3), c h a r a c t e r i z e d in that

- a recess (4) is formed at the component's (8) embedding location, in such a way that the recess intersects the optical bus (3),
- the component, which includes on one side both the optically active area (11) and at least one conductive area (10, 12), is set in place in such a way that the optically active area (11) of the component comes into the vicinity of the intersection surface of the optical bus and the surface of the optically active area is at essentially right angles to the place of the circuit board.

2. A method according to claim 1, c h a r a c t e r i z e d in that, when forming the recess (4), only material or materials, which do not act as an electrical transfer path (1), are removed from the circuit board.

3. A method according to claim 1 or 2, c h a r a c t e r i z e d in that transparent insulating material (9) is brought to the recess (4) remaining around the component after embedding, in such a way that the insulating material fill the space between the optically active area and the intersection surface of the optical bus.

4. A method according to claim 3, c h a r a c t e r i z e d in that the recess (4) remaining around the component after embedding is entirely filled with insulating material (9).

5. A method according to claim 3 or 4, c h a r a c t e r i z e d in that a pit is left or formed in the upper part of the recess (4), and is filled with a conductive material (13).

6. A method according to claim 5, c h a r a c t e r i z e d in that the electrically conductive material (13), with which the recess is filled, is a conductive polymer, a conductive adhesive, or a metal.

7. A method according to any of the above claims, c h a r a c t e r i z e d in that the side of the component facing the optical bus includes an optically active area (11) and an area or areas (10, 12) of a conductive material.

8. A method according to any of claims 5 - 7, c h a r a c t e r i z e d in that the area or areas (10, 12) of conductive material are connected electrically to the conductor layer (1) located on the surface of the circuit board on side of the embedding of the component.

9. A method according to any of the above claims, c h a r a c t e r i z e d in that the side of the component facing away from the optical bus, or an adjacent side comprises an area (10) of a conductive material.

10. A method according to claim 9, c h a r a c t e r i z e d in that the component's area (10) of conductive material is connected electrically to the conductor layer (1) located on the surface of the circuit board beneath the component embedding location.

11. A method according to any of the above claims, c h a r a c t e r i z e d in that the component is attached to the metal layer (5) beneath it with the aid of a conductive adhesive.

12. A method according to any of the above claims, c h a r a c t e r i z e d in that the top surface of the component (8) is a light emitting or receiving component.

13. A circuit board, which comprises

- an optical component (8), and
- an optical bus (3), through which an optical signal can be led to the component or away from the component,

c h a r a c t e r i z e d in that the component (8) is at least partly embedded inside the circuit board, in such a way that the component comes into optical contact with the optical bus and that the component (8), which comprises on one side both an optically active area (11) and at least one conductive area (10, 12), is set in place in such a way that the optically active area (11) of the component is at essentially right angles to the plane of the circuit board.

14. A circuit board according to claim 13, c h a r a c t e r i z e d in that the component (8) is embedded inside the circuit board, in such a way that the component is located entirely between the first and second surface of the circuit board.

15. A circuit board according to claim 13 or 14, c h a r a c t e r i z e d in that the space between the optically active area (11) of the component (8) and the optical bus (3) is filled with the same material as the optical bus (3).

16. A circuit board according to claim 15, c h a r a c t e r i z e d in that the component (8) comprises a first conductor material area (12) and a second conductor material area (10), and from which first conductor material area (12) an electrical contact is formed with the circuit board's first conductor layer (1) and from which second conductor material area (10) an electrical contact is formed with the circuit board's second conductor layer (1) that is at a different level in the thickness direction of the circuit board.

17. A circuit board according to any of the above claims, c h a r a c t e r i z e d in that the top surface of the component is a light emitting or receiving component.